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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,371	11/24/2003	Susan S. Chen	702.298	4720
29228	7590	10/09/2007		
GARMIN INTERNATIONAL, INC. ATTN: Legal - IP 1200 EAST 151ST STREET OLATHE, KS 66062			EXAMINER TO, TUAN C	
			ART UNIT 3663	PAPER NUMBER
			MAIL DATE 10/09/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/720,371	Applicant(s) CHEN ET AL.	
	Examiner Tuan C. To	Art Unit 3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 20-25 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-37 is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

Applicant is advised that the Notice of Allowance mailed 02/2/2007 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation: "flight path angle". There is insufficient antecedent basis for this limitation in the claim.

In addition claim 1 recites "storing portion of the data relating to the spatial region in a memory buffer", "searching a portion of the memory buffer cells". What defines said portion? Searching a portion of the memory buffer cells. So the claim requires searching a portion of the portion stored in the memory.

Claim 6 recites "searching a portion of the memory buffer cells comprises searching a portion less than all of the memory buffer cells". It is unclear what portion is defined for searching less than all of the memory buffer cells.

Therefore, claims 1-19 are rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1 and 2 are rejected under 35 U.S.C. 102 (e) as being anticipated by Riemens et al. (US 20030063673A1).

Regarding claim 1, Riemens et al. teaches a system/method of searching data relating to at least one characteristic of a spatial region comprising: identifying a search vector through the search area S (Riemens et al., page 2, paragraph 0029), the search vector V (Riemens et al., page 2 paragraph 0020). Riemens et al. does not mention that said vector has a starting point, a direction and a length, however, such feature is

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inherently included since each vector is defined by its starting point, direction and its length. Its length is the absolute value of the vector.

Riemens et al. further teaches storing a portion of the data relating to the spatial region in a memory buffer having memory cells representative of the search vector such that spatial region data corresponding to the search vector is stored in memory cells representative of the search vector (Riemens et al, page 2, paragraph 0029), searching a portion of the memory buffer cells in a predetermined prioritized order (Riemens et al., paragraph 002, the "block matching technique" set forth in Riemens broadly reads on the applicant claimed predetermined prioritized order), and comparing a value stored in the memory cell with a predetermined search criteria independent of flight path angle (Riemens et al., figure 3, page 2, paragraphs 0028 and 0033, the block matcher 2 performs comparison by matching the value stored in the memory cell with a search criteria).

As to claim 2, Riemens et al. further teaches searching the memory buffer cells in a non-linear prioritized order (paragraph 0035).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3-5, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riemens et al. (US 20030063673A1) and in view of Block (US20050007270A1).

Regarding claim 3, Riemens et al. discloses system/method of searching data relating to at least one characteristic of a spatial region. Riemens et al. does not teach "comparing a value stored in the memory cell with a predetermined search criteria dependent upon a vertical velocity of an aircraft on an aircraft flight path".

The second reference to Block as been cited as teaching a system/method for predictive altitude display in which the value stored in a memory is compared with a search criteria value dependent upon a vertical velocity of an aircraft (see paragraph 0036).

It would have been obvious to one having ordinary skill in the art the time the invention was made to modify the system/method as taught by Riemens et al. to include

the teaching of Block so that member of flight crew is immediately alert if the aircraft elevation at a specific geographical position is exceeded a desired threshold.

As to claim 4, Block inherently discloses storing pre-stored data in a memory having a value matching a search criteria in an alert list (see figure 4, different warning indicator such as RED, YELLOW, and GREEN are provided to indicate a typical warning).

As to claim 5, Block discloses providing results of the alert list when a predetermined number of memory cell values meet the predetermined search criteria (see figure 4, each color indicator as mentioned above is a result when values stored in pre-stored memory meet a predetermined search criteria).

As to claim 8, Block teaches searching in alert cycles, each alert cycle comprising a different search vector (see figure 4, the search vector 126, 126', and 126").

As to claim 10, Block further teaches a search vector through the spatial region comprises identifying an aircraft flight path through a geographic region and storing data relative to elevation values for a portion of the geographic region in a memory (see paragraph 0036, and figures 3A, and 4).

Response to Arguments

In response to the applicant's arguments filed on 11/8/2006, a new ground of rejection including the double patenting rejection. Claims 1-19 are rejected under 35 U.S.C 112(2) since claim 1 and 6, each recites "portion" which renders the claims indefinite.

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Allowable Subject Matter

Claims 26-37 are still set in a condition of allowance.

Conclusions

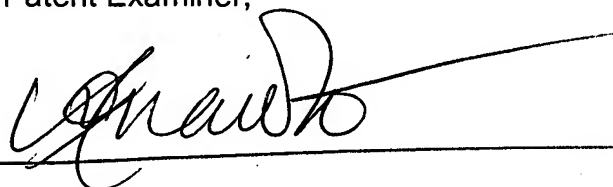
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan C To whose telephone number is (571) 272-6985. The examiner can normally be reached on from 8:00AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner,

A handwritten signature in black ink, appearing to read 'Tuan C To', is written over a horizontal line.

Tuan C To

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September 19, 2007